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REMARKS

This is in response to the final Office Action dated February 24, 2000 (Paper No. 37). Reconsideration and withdrawal of the new rejections and objections raised in the Office Action are respectfully requested. The claims have been amended as shown above. By the foregoing amendment, claims 16 and 31 have been canceled without prejudice or disclaimer. Claims 28, 43, 44, 47, 48, 43, 46, 47, 50, 51 53 57, 60 and 65 have been amended or corrected as follows: claims 28, 43, 46, 47, 50, 51, 53, 57, 60 and 65, line 1, the claims dependencies have been changed to depend on claim 43 or 47; claim 43, lines 1-16, the subject matter of now canceled claim 16 has been incorporated into claim 43, line 18, "and said flywheel body" has been deleted, line 19, "comprise" has been changed to --comprises--; line 21, "first" has been inserted before "free;" claim 44, line 2, --second free-- has been inserted before "space;" claim 47, lines 1-16, the subject matter of now canceled claim 31 has been incorporated into claim 47, line 18, "and said flywheel body" has been deleted, line 19, "comprise" has been changed to --comprises--; line 21, "first" has been inserted before "free;" claim 48, line 2, --second free-- has been inserted before "space." Claims 55 and 63 have been amended to delete "substantially." New claims 69 to 74 have been added. Support for the amendment to the claims and new claims 69 and 70 can be found throughout the original disclosure, for example, in Figure 1 and at column 4, lines 1-21 and 50-55. Support for new claims 71 and 74 can be found at column 4, lines 37 to 62 and at column 5, line 52 to column 6, line 11. Support for new claim 72 can be found at column 4, lines 52 to 55. Support for new claim 73 can be found at column 6, lines 24 and 25. For the examiner's convenience, a marked up copy of the claims showing the additions and deletions from previous amendment is enclosed as Exhibit A.

The specification has been amended at column 4, line 17, after to provide explicit antecedent basis in the specification for the term "a first free space" as that term is used in the claims. Column 4, line 20 of the specification has been amended to provide explicit antecedent basis in the specification for the term "a first clearance" and "second free space" as that term is used in the claims.

Entry of the amendment is respectfully requested, because the amendment is believed to overcome all of the rejections and objections raised in the outstanding Office Action and is believed to place the application into condition for allowance. Upon entry of the amendment, claims 1-12, 28, 31 and 43 to 71 are pending in the application. All of the

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changes made to the pending claims during this reissue proceeding are shown in the above rewritten claims with appropriate underlining to show the additions, and brackets to show the deletions, in accordance with 37 C.F.R. § 1.121(b). An explanation of the support in the disclosure of the patent for each of these changes to the claims is provided in the remarks accompanying the amendment filed on November 17, 1998 and above. Moreover, a Second Supplemental Reissue Declaration covering some of the changes made by this Amendment and all previous amendments was filed on November 17, 1998. A Third Supplemental Reissue Declaration covering changes made by this Amendment and not covered by a prior declaration will be submitted upon a finding the application is in condition for allowance in accordance with MPEP 1444 at page 1400-31 (July 1998 edition).

Paragraph 5 of the Office Action – Objection To The Specification

The specification has been amended at column 4 to address this objection. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Paragraph 6 of the Office Action --Section 112, second paragraph rejections

Claims 16, 28, 31 and 43-68 stand rejected under 35 U.S.C. § 112, second paragraph. With respect to the objection to "movable" in claims 16 and 31, applicants have amended claims 43 and 47, which contain the limitations of claims 16 and 31 respectively, to recite "moves axially." With respect to the objection to the terms "first portion," "free space" and "first free space," applicants have amended the claims to further distinguish them from each other. The specification has also been amended as described above to provide reference with respect to the drawings where each of these features can be found. "Substantially" in claims 55 and 63 has been canceled.

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Paragraph 7 of the Office Action – Improper recapture rejection under 35 U.S.C. § 251

Claims 16, 28, 31 and 43-68 stand rejected under 35 U.S.C. § 251 as being improper recapture of broadened claimed subject matter which had been previously surrendered. In maintaining the improper recapture rejection, the Examiner disputes the materiality of the limitations added to claims 16 and 31. Specifically, the Examiner refuses to give the added limitations any material weight because according to the Examiner:

1. The first limitation of "wherein said elastic plate is clamped axially between said reinforcing member and said shaft end of said crank shaft" is copied from claim 4 of the '635 patent. The Examiner's position is that because this was a dependent claim that depended from an allowed claim, it can not be a material limitation.
2. The second limitation "wherein a first portion of said flywheel is axially movable with respect to said reinforcing member and said elastic plate" is considered vague and indefinite in view of the Examiner's objection to the term "movable."

With respect to the first limitation of "wherein said elastic plate is clamped axially between said reinforcing member and said shaft end of said crank shaft," applicants respectfully submit the PTO's argument concerning this limitation is erroneous. The amendment filed under 37 C.F.R. § 1.196(b) was the first time that a claim identical to claim 4 of '635 patent was presented. This claim was presented as new claim 19. This amendment was submitted February 14, 1994 after the Board's decision dated January 5, 1994 affirming the Examiner's rejections.

In the first Office Action of the continuation application (Serial No. 08/243,526) dated after the Board affirmed the Examiner's rejection, the Examiner noted that misnumbered claims 19-26 were renumbered as claims 20-27, respectively. This means that claim 4 of the '635 patent was considered by the Examiner to be claim 20 rather than claim 19. The Examiner continued to reject claims 14-16 and 18 as being unpatentable over Numata in view of Applicants' prior art admissions. The Examiner

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indicated that the rationale of the Board of Appeals decision was being incorporated by reference.

Significantly, in paragraph 10 on page 4 of the Office Action, the Examiner indicated that claims 11-13 and 20--27 contained allowable subject matter. Claim 20 depended on allowed claim 11, therefore, the PTO never directly opined, one way or the other, whether claim 20 contained subject matter that was independently allowable from claim 11. Thus, the Examiner is in error to take the position that the record allegedly demonstrates that this limitation was immaterial.

With respect to the second limitation, the Examiner further notes at page 8 of the Office Action that since the term "movable" is vague and indefinite, it adds no substance and is thus incidental or inherent. Citing *Mentor Corporation v. Colorplast*, 998 F.2d 992 (Fed. Cir. 1993), the Examiner concludes that since the limitation is incidental or inherent it is immaterial. As noted above, claims 43 and 47 have been amended to change "axially movable" to --moves axially--. Since this is believed to overcome the Section 112, second paragraph rejection, the term is no longer vague and indefinite, and thus, not "incidental" or "inherent." This limitation in question is clearly material, at least with respect to Numata et al., since Numata et al. is not being applied to reject claims 16 and 31. That is, this limitation in connection with the first limitation described, *supra*, is material and is also related to the prior art rejection based on Numata et al. in the parent patent in that it patentably defines the claims over Numata et al.

As pointed out on page 19 of the Reply filed December 3, 1999, the narrowing limitation added to claims 16 and 31 and the limitation being removed and the limitation being added are related to each other. Specifically page 19 states:

The limitation being removed from claims 1 and 8 defines an interrelationship between the elastic plate, the flywheel body and the reinforcing member (reference Nos. 2, 5 and 4, respectively, in Figure 1 of the present application), and axial movement of the flywheel body relative to the reinforcing member and elastic plate. Likewise, the narrowing limitation being added recites an interrelationship between the crankshaft, elastic plate, the flywheel body and the reinforcing member (reference Nos. 1, 2 and 4, respectively), and axial movement of the flywheel body relative to the reinforcing member and elastic plate, albeit somewhat more broadly.

To further emphasize the relation of the limitation being added with the limitation being removed, in particular the structure of the flywheel that provides for axial movement of the flywheel body, applicants have canceled 16 and 31 and incorporated their

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features into claims 43 and 47, respectively, which applicants gratefully acknowledge the Examiner has not rejected over any prior art of record.

In claims 1 and 8 of the '635 patent the claim limitation being removed recites each of the elastic plate, flywheel body and the reinforcing member having first portions that *define clearances* for allowing the first portion of the flywheel body to move axially between the first portions of the elastic plate and the reinforcing member, and the axial order of the elastic plate and reinforcing element. Thus this particular limitation defines elements (i.e., the clearances) that allow for axial movement of the flywheel body and the axial order of the components. This was to further distinguish over Numata et al. that taught the plate member 24 (i.e., corresponded to a reinforcing element) disposed entirely on the opposite side of the elastic plate 3 from the flywheel body, and to further distinguish from Japanese Patent Publication No. 63-190639, that disclosed a stopper element 21 between the flywheel body and the flexible plate.

In defining the axial movement aspect, applicants were following older conventional U.S. claim drafting practice that discouraged direct claiming of "intangible" elements such as spaces or volumes without physical structure. For example, under older claim drafting practice it was generally prohibited to claim a "hole" per se. Instead, it was necessary to claim physical structure that would define the "hole," e.g., "a rod having a hole at one end." See e.g., *In re Hall*, 77 USPQ 618, 168 F.2d 92 (CCPA 1948) (noting that "[t]he word 'space' in our opinion can not be considered anything tangible. It is something without limits or might be aptly described as 'nothing.'"). See also, *Ex Parte Davin*, 1902 CD 251 (holding that "[a]n 'opening' should not be made a positive or direct element in combination claims, for the reason that *an opening is not a tangible thing*. It can exist only in connection with some other element."). This was precisely the situation applicants were faced with when defining the clearances for the movement of the flywheel body. That is, rather than defining the clearance directly, the clearances were defined in terms of the first portions of the flywheel body, the elastic plate and the reinforcing members. Aside from defining the axial order of the elastic plate vis-à-vis the reinforcing element, these portions add nothing to the claim other than to define the "structure" of the clearances.

In totality, the limitations of amended independent claims 43 and 47 are substantially equivalent to the limitations removed from claims 1 and 8 in that they recite a first portion for the flywheel body and the elastic plate. This first portion defines a first

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clearance for allowing axial movement of the flywheel body. Amended claims 43 and 47 also define the axial order of the elastic plate vis-à-vis the reinforcing element. The difference between the old limitations and the new limitations lie mainly in the space on the side of the flywheel body opposite to the first clearance. Specifically, instead of using structure of the reinforcing element and the flywheel body to define another clearance and the relationship of the reinforcing element to the rest of the structure, applicants have instead claimed a first free space for allowing the flywheel body to axially move, and have claimed the axial order of the crankshaft, the elastic plate and the reinforcing element. However, the effect is still the same, namely, spaces are defined for allowing axial movement of the flywheel body, and the axial order of the elastic plate vis-à-vis the reinforcing element is defined. Thus, although somewhat different terminology is employed, substantially the same structure is being claimed, structure that allows for axial movement of the flywheel body and defines the axial order. There is no authority that applicants or their representatives are aware of that requires exact word for word claiming to avoid recapture, even under its most limiting interpretation. Moreover, the inclusion into a claim of unnecessary recitations of structure due to following outdated claim drafting "principles" is clearly the type of "error" that is correctable by reissue.

In summary, the material features that applicants relied upon to establish the patentability of the original patent claims (i.e., that which was relinquished in the original patent) are still in the reissue application claims, i.e., the two clearances for the movement of the flywheel body, and structure for defining axial order of the elastic plate vis-à-vis the reinforcing element. The structural element that has been deleted from the reissue claims, namely, the "first portion of the reinforcing element," was itself clearly not material to allowance of the original patent claims. As noted above, this first portion was solely to define a clearance and the axial order of the elastic plate vis-à-vis the reinforcing element.

Rather, the recitation of this piece of structure in the original patent claims was partly included as a result of antiquated claiming rules that required it to define the clearance. Consequently, there is no material difference in this regard between the original patent claims and the present reissue application claims, which do in fact, still require the presence of the two clearances and the same axial relationship of the elastic plate and reinforcing element, both of which were included in the original patent claims during prosecution of the patent.

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Accordingly, since no recapture is present under any interpretation of the recapture doctrine, reconsideration and withdrawal of the rejections under 35 U.S.C. § 251 are respectfully requested.

Paragraph 8 of the Office Action – Rejection under 35 U.S.C. § 103(a)

Claims 16, 28, 31, 46, 50-53, 61 and 66 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Utility Model No. 64-11453. In view of the amendment canceling claims 15 and 31 and correcting the dependencies of the remaining rejected claims to depend on non-rejected claims, applicants submit this rejection is moot. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Method Claims 71-74

New claims 71 to 74 claim a method for shifting a resonance frequency of a flexural or bending vibration of a crankshaft assembly of an internal combustion engine out of a target frequency band of a forced vibration.

Method claims 71 to 73 include all the limitations of claim 43 that has not been rejected over the prior art. Regardless of the Examiner's position regarding recapture of claims 43 and 47, there can be no recapture with respect to method claims 71 to 73, because these claims are being presented for the first time during prosecution of the present reissue application. The only method claims that have been previously on-file were method claims 6 to 8 that were present in the originally filed application. However, these claims were directed to a method for forming a crankshaft assembly, and not the method claims presented with this amendment. Thus, the subject matter of the present method claims was not surrendered in the application for the '635 patent. Thus, in addition to being allowable for these same reasons claim 43 is allowable, method claims 71 to 73 are further allowable, since there is clearly no issue of possible recapture of previously surrendered subject matter.

Likewise, there is no recapture with respect to new method claim 74 for the same reasons advanced above with respect to method claims 71 to 73. Since the prior art fails to teach or suggest the method as claimed in claim 74 and since there is no recapture with respect to claim 74, applicants submit this claim is also allowable.

In view of the foregoing, applicants respectfully submit that this reissue application is now in condition for allowance. Early issuance of a Notice of Allowance is

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respectfully requested. If the Examiner Luong has any questions or comments that could place this application into even better form, he is encouraged to contact the Applicants' undersigned representative at the number listed below.

Respectfully submitted,

Dated: _____

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